NODE TRANSLATION AND PROTECTION IN A CLUSTERED MULTIPROCESSOR SYSTEM

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Abstract of the Disclosure

A method of node translation for communicating over virtual channels in a clustered multiprocessor system using connection descriptors (CDs), which specify the endpoint nodes for virtual connections. The system includes a local processing element node, a remote processing element node and a network interconnect therebetween for sending communications between the processing element nodes. The method includes assigning a CD to specify an endpoint node for a virtual connection, defining a local connection table (LCT) to be accessed with the CD to produce a system node identifier (SNID) of the endpoint node, generating a communication request including the CD, accessing the LCT using the CD of that communication request to produce the SNID for the endpoint node of the connection in response to that request, and sending a memory request to the endpoint node. The memory request is sent to the local processing element node if the endpoint node is the local processing element node, and is sent over the network interconnect to the remote processing element node if the endpoint node is the remote processing element node.

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